NL INDUSTRIES/TARACORP SUPERFUND SITE GROUP

Leed Environmental, Inc. Van Reed Office Plaza 2209 Quarry Drive, Suite C-35 Reading, PA 19609 Telephone: (610) 670-7310 Facsimile: (610) 670-7311

May 24, 2019

By Electronic Mail and First Class Mail

Ms. Sheri L. Bianchin Remedial Project Manager Institutional Controls Coordinator U.S. Environmental Protection Agency Region 5 77 West Jackson Boulevard (SR-6J) Chicago, IL 60604

Re: NL Industries/Taracorp Superfund Site; Granite City, Illinois First 2019 Semi-Annual Operation and Maintenance Inspection (May 2019)

Dear Ms. Bianchin:

On behalf of the NL Industries/Taracorp Superfund Site Group (Group), enclosed are copies of the log sheets, aerial photographs, and reproductions of ground-level photographs documenting the results from the first 2019 semi-annual operation and maintenance inspection performed on May 20, 2019 at the NL Industries/Taracorp Superfund Site in Granite City, Illinois. The results of the inspection are summarized on the log sheets which are attached.

Several items of note from the inspection are listed as follows:

- At Slough Road (shown on Figure 1 and the photographs in Attachment 1), no disturbance of the gravel cover to the previously paved area was observed. Also, I met with Mr. Earl Boyd, Terminal Manager for Beelman River Terminals, Inc. (Beelman). Mr. Boyd confirmed that there has been no disturbance to the paved surface of Slough Road (which is no longer visible) since the time the paved roadway was covered with soil/gravel fill as part of the expansion of Beelman's operations.
- The paved portion of Watson Alley in Eagle Park Acres (shown on Figure 2 and the photographs in Attachment 2) was inspected and noted to be in good condition.
- During the inspection in Eagle Park Acres, a vacant lot on Harrison Street, which is located adjacent to the unpaved portion of Watson Alley and which was recently cleared of vegetation, was observed. Scattered hard rubber battery case chips were observed on the soil surface in several areas on the property. The Group will provide additional details to EPA in a separate communication.

- Two remote fill properties Non-Responsive in Eagle Park Acres (Figure 3) that were previously remediated by EPA (and where lead-impacted soil and/or battery case chips may remain in place at a depth of three feet below the ground surface) were observed during the inspection. As shown on the photographs in Attachment 3, the properties are vacant, vegetated, and no evidence of subsurface soil disturbance was observed.
- Alleys in Venice that were paved during remedial activities were inspected and noted to be in generally good condition, with some minor cracking and deterioration observed in some areas, with no battery case chips visible. The Venice alleys are shown on Figure 1 and are identified on the photographs in Attachment 4. Previous inspections have confirmed that the local municipality is continuing to repair and repave alleys, as necessary (Attachment 4, photographs 9 and 17).
- Observations at the Taracorp pile cap and 1555 State Street property (Figure 4) are shown on the photographs provided in Attachment 5. No problems impacting the effectiveness of the Taracorp pile cap, the concrete surface water drainage channel around the Taracorp pile, or the stormwater discharge system were observed during the inspection. The following activities have been initiated in response to the observations during the inspection of the Taracorp pile and 1555 State Street property:
 - The Group has requested a proposal from its fence contractor, TNT Fence Company, to repair a short section of damaged fence along the railroad tracks (Attachment 5, photographs 94-95), to reaffix a warning sign to the security fence along the northwestern side of the Taracorp pile (Attachment 5, photographs 20-23), and to check the security of wire ties used to affix other warning signs onto the fence.
 - The Group has notified the owner/operator of All Pallet Services, one of the companies that operates on the neighboring property, and has requested that All Pallet Services address several fence issues attributable to its operations. Those issues include repairing a bent section of fence, repairing barbed wire and a separated fence post, and addressing litter (Attachment 5, photographs 38-44).
- As shown on the photographs in Attachment 6, no evidence of disturbance of the soil cover or asphalt roadway was observed at Schaeffer Road (a remote fill property remediated by EPA). Several scattered battery case chips were observed on the ground surface near a sanitary sewer manhole located near the western end of Schaeffer Road at the approximate location on Figure 5.
- At Sand Road (also a remote fill property remediated by EPA), some scattered battery case chips are visible on the ground surface within the foundation area of a former building on the property (Attachment 7, photograph 9). No evidence of disturbance of the soil cover was observed.

Mr. Sheri Bianchin May 24, 2019 Page 3

Please let me know if you have questions or if additional information or clarification is needed at this time.

Very truly yours,

LEED ENVIRONMENTAL, INC.

Jeffrey A. Deed Project Coordinator

attachments

cc: Mr. Brian Conrath / Mr. Tom Miller – Illinois Environmental Protection Agency (w/attachments, by electronic mail)
Technical Committee, NL Industries/Taracorp Superfund Site Group (w/attachments, by electronic mail)

Inspection Date: 5/20/2019

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.				Weather: Sunny / Partly Cloudy, 65°F - 72°F	
Site Structure	Inspected (yes/no)	Problem(s) Identified (yes/no)	Inspection Observations	Maintenance Work	
REMOTE FILL PROPERTIES - EAGLE PARK ACRES					
200 Allen Street					
Evidence of settlement, erosion, deterioration, or excavation	Yes	No			
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes (drive-by)	No			
Indicate location and extent					
Comments			See Note 4.		
206 Terry Street					
Evidence of settlement, erosion, deterioration, or excavation	Yes	No			
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes (drive-by)	No			
Indicate location and extent					
Comments			See Note 4.		

Notes/Observations:

^{4.} Two remote fill properties Non-Responsive in Eagle Park Acres (Figure 3) that were previously remediated by EPA (and where lead-impacted soil and/or battery case chips may remain in place at a depth of 3 feet below ground surface) were observed during the inspection. As shown on the photographs in Attachment 3, the properties are vacant, vegetated, and no evidence of subsurface soil disturbance was observed.

Inspection Date: 5/20/2019

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.

Weather: Sunny / Partly Cloudy, 65°F - 72°F

Site Structure	Inspected	laentinea	Inspection Observations	Maintenance Work		
PAVED ALLEYS	(yes/no)	(yes/no)		Performed or Required		
Slough Road						
Evidence of broken or deteriorated asphalt	Yes	No				
Visual evidence of hard rubber battery case chips	Yes	No				
Indicate location and extent						
Comments			See Note 1.			
Eagle Park Acres (Watson Alley)						
Evidence of disturbance to paved surface of Watson Alley	Yes	No				
Visual evidence of hard rubber battery case chips	Yes	No				
Indicate location and extent						
Comments			See Note 2.			
Venice Alleys						
Evidence of broken or deteriorated asphalt	Yes	No				
Visual evidence of hard rubber battery case chips	Yes	No				
Indicate location and extent						
Comments			See Note 3.			

Notes/Observations:

- 1. At Slough Road (Figure 1) and as shown on the photographs in Attachment 1, Mr. Earl Boyd, Terminal Manager for Beelman River Terminals, Inc., confirmed that there has been no disturbance to the paved surface of Slough Road (which is no longer visible) since the time it was covered with soil fill. Scattered hard rubber battery case chips were observed on the soil surface and in soil piles near the foundation of the former Robin's Nest Lounge.
- 2. The paved portion of Watson Alley in Eagle Park Acres (as shown on Figure 2 and the photographs in Attachment 2) was inspected and noted to be in good condition.
- 3. Alleys in Venice that were paved during remedial activities were inspected and noted to be in generally good condition with some minor cracking and deterioration observed in some areas. The Venice alleys are shown on Figure 1 and are identified on the photographs in Attachment 4.

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.

Inspection Date: 5/20/2019

Weather: Sunny / Partly Cloudy, 65°F - 72°F Problem(s) Inspected **Maintenance Work Site Structure** Identified **Inspection Observations** Performed or Required (yes/no) (ves/no) TARACORP PILE PROPERTIES (TARACORP PROPERTY AND 1555 STATE STREET PROPERTY) **Security Fence - Condition** Gates/locks secure and operative Yes No Yes Evidence of rust, cuts, deterioration, or other damage Yes A bent fence post, a separated fence post, and some broken barbed wire were observed The Group requested that All Pallet Services address these items. along the All Pallet Services' side of the facility. A damaged fence post and a small section of torn fence fabric was observed along the The Group requested a proposal from TNT Fence Company for the railroad tracks. repairs. Yes No Evidence of unauthorized entry Yes No Burrowing or tunneling under fence No Damaged barbed wire Yes Comments No evidence of unauthorized entry. **Security Fence - Warning Signs** Yes No Evidence of rust, cuts, deterioration, or other damage Yes No Evidence of tampering Securely affixed to fence Yes Yes Warning sign on northwestern side of Taracorp pile was not attached to the fence. The Group requested a proposal from TNT Fence Company to reaffix the sign and to check wire ties for other warning signs. Yes No Signs legible Comments **Access Road** Yes No Evidence of settlement or deterioration Comments No access road problems. **Taracorp Pile - Vegetation** Adequate growth of vegetation Yes No No Yes Adequate diversity of vegetation Yes No Evidence of stress No stress; thick vegetation. Yes No Presence of trees, shrubs, woody bushes No trees, shrubs, etc. observed. Yes No Need for mowing/maintenance Comments The Group's contractor, Munie Greencare Professionals (Munie), cut the vegetation on Following the inspection, the Group requested that Munie cut the the flat parts of 1555 State Street property and the Taracorp pile cap on May 17, 2019. vegetation along the State Street sidewalk. Taracorp Pile - Erosion Yes No Evidence of erosion Indicate areal extent and location ------Comments No erosion evident. **Taracorp Pile - Settlement** Evidence of settlement Yes No Following the inspection, the Group requested that Munie cut the vegetation on the Taracorp pile cap when weather conditions prevent the potential for rutting. Indicate areal extent and location ------Comments No settlement evident.

Inspection Date: 5/20/2019

Inspector's Name/Company: Jeff Leed, Leed En	vironmenta	al, Inc.		Weather: Sunny / Partly Cloudy, 65°F - 72°F	
Site Structure	Inspected	Problem(s)			
	(ves/no)	Identified (yes/no)	Inspection Observations	Maintenance Work Performed or Required	
TARACORP PILE PROPERTIES (TARACORP	(,	(v	55 STATE STREET PROPERTY)	1 criorinea or requirea	
Taracorp Pile - Cracks			,		
Evidence of cracks	Yes	No			
Indicate areal extent and location					
Comments			No cracks evident.		
Taracorp Pile - Ponding					
Evidence of ponding	Yes	No			
Indicate areal extent and location					
Comments			No ponding evident.		
Taracorp Pile - Bulges					
Evidence of bulges	Yes	No			
Indicate areal extent and location					
Comments			No bulges evident.		
Taracorp Pile - Seeps					
Evidence of seepage (leachate)	Yes	No			
Indicate areal extent and location					
Comments			No evidence of seepage observed.		
Taracorp Pile - Slope Stability					
Evidence of sliding	Yes	No			
Indicate areal extent and location					
Comments			No sliding evident.		
Taracorp Pile - Leachate Management System					
Riser pipe - evidence of deterioration	Yes	No			
Riser pipe - locked	Yes	No			
Leachate levels in sump	No				
Comments			No problems identified. Leachate level checked during five-year review site work.		
Concrete Drainage Channel Around Taracorp Pi	le				
Evidence of cracks or other deterioration	Yes	Yes	Some cracks observed in concrete drainage channel (probably from mowing). No evidence of adverse impacts to surface water drainage.		
Evidence of obstructions	Yes	No			
Evidence of erosion	Yes	No			
Evidence of improper drainage	Yes	No			
Comments					
Retention Basin for Stormwater Runoff					
Adequate vegetation	Yes	No			
Evidence of erosion or deterioration	Yes	No			
Appropriate drainage to storm sewer	Yes	No			
Comments			No problems with retention basin evident.		
Concrete Sidewalk (1555 State Street Property)					
Evidence of cracks or other deterioration	Yes	No			
Comments			Concrete sidewalk is in good condition; no problems identified.		

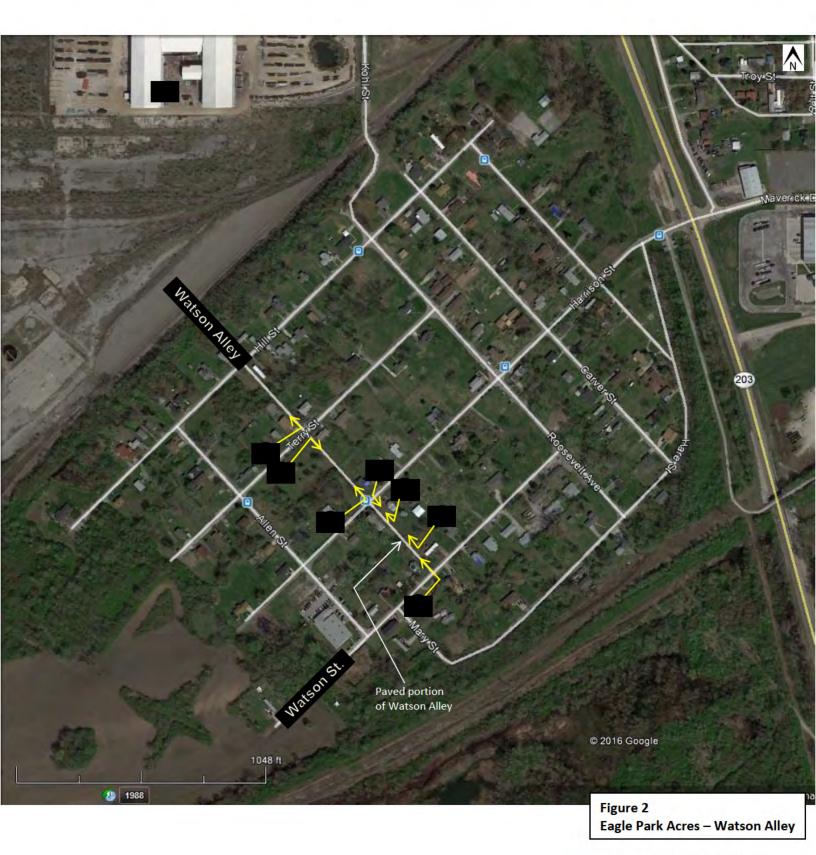
Inspection Date: 5/20/2019

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.				Weather: Sunny / Partly Cloudy, 65°F - 72°F		
Site Structure	Inspected (yes/no)	Problem(s) Identified (yes/no)	Inspection Observations	Maintenance Work		
OTHER REMOTE FILL PROPERTIES						
Schaeffer Road	Schaeffer Road					
Evidence of settlement, erosion, deterioration, or excavation	Yes	No				
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes	Yes				
Indicate location and extent						
Comments			See Note 5.			
Sand Road						
Evidence of settlement, erosion, deterioration, or excavation	Yes	No				
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes	Yes	See Note 5.			
Indicate location and extent						
Comments			See Note 5.			

Notes/Observations:

5. Remote fill properties (Schaeffer Road and Sand Road) previously remediated by EPA (and where lead-impacted soil and/or battery case chips may remain in place at a depth of three feet below ground surface) were observed during the inspection. Photographs are provided in Attachment 6 and Attachment 7, respectively. At Schaeffer Road, several scattered battery case chips were observed on the soil surface near the sanitary sewer manhole near the west end of Schaeffer Road at the approximate location shown on Figure 5. Scattered battery case chips and some other debris (bricks, etc.) are evident near the foundation area of the former building at the Sand Road property shown on Figure 6.





Watson Alley photograph locations (photographs provided in Attachment 2).

Non-Responsive

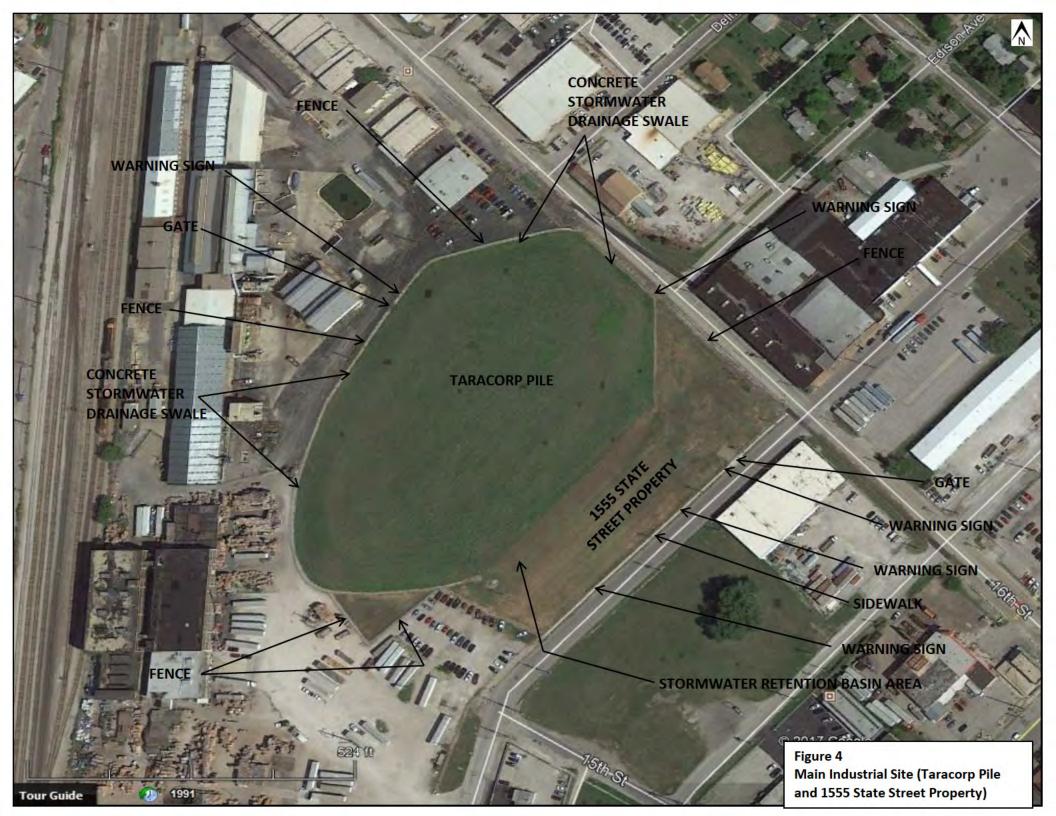




Figure 5 Schaeffer Road



Attachment 1 Slough Road Photographs May 20, 2019



Photograph 1: Beelman storage area/warehouse.



Photograph 2: Beelman storage area/warehouse.



Photograph 3: Slough Road, inside fence (along Bremen Street).



Photograph 4: Slough Road, inside fence (along Bremen Street).



Photograph 5: Slough Road, concrete debris.



Photograph 6: Slough Road, inside fence (along Bremen Street).

Attachment 1 Slough Road Photographs May 20, 2019



Photograph 7: Slough Road, concrete debris.



Photograph 8: Slough Road, foundation of former Robin's Nest Lounge.



Photograph 9: Slough Road, scattered battery case chips on concrete surface of former Robin's Nest Lounge.



Photograph 10: Slough Road, foundation of former Robin's Nest Lounge.



Photograph 11: Slough Road, soil pile near foundation of former Robin's Nest Lounge.



Photograph 12: Slough Road, soil pile near foundation of former Robin's Nest Lounge.

Attachment 1 Slough Road Photographs May 20, 2019



Photograph 13: Slough Road, soil pile near foundation of former Robin's Nest Lounge.

















Photograph 1: Entrance to 1555 State Street property along State Street.



Photograph 2: Entrance to 1555 State Street property along State Street.



Photograph 3: Warning sign at front gate along State Street.



Photograph 4: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 5: End of concrete drainage of swale, east side of Taracorp pile.



Photograph 6: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 7: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 8: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 9: Concrete drainage swale, north side of Taracorp pile (view southeast).



Photograph 10: Concrete drainage swale, fence, and vegetation; north side of Taracorp pile along 16th Street (view northwest).



Photograph 11: Concrete drainage swale, fence, and vegetation; north side of Taracorp pile along 16th Street (view northwest).



Photograph 12: Concrete drainage swale, fence, and vegetation; north side of Taracorp pile along 16th Street (view northwest).



Photograph 13: Concrete drainage swale and vegetation; northwestern side of Taracorp pile (view northeast).



Photograph 14: Vegetation, northwestern side of Taracorp pile cap (view southwest).



Photograph 15: Concrete drainage swale, fence, and vegetation along northwestern side of Taracorp pile (view southwest).



Photograph 16: Concrete drainage swale, crack in concrete along northwestern side of Taracorp pile.



Photograph 17: Concrete drainage swale, fence, and vegetation along northwestern side of Taracorp pile (view southwest).



Photograph 18: Concrete drainage swale, fence, and vegetation along northwestern side of Taracorp pile (view southwest).



Photograph 19: Concrete drainage swale, vegetation along northwestern side of Taracorp pile (view north/northeast).



Photograph 20: Fence, warning sign (fallen from fence), western side of Taracorp pile.



Photograph 21: Fence, warning sign (fallen from fence), western side of Taracorp pile.



Photograph 22: Fence, warning sign (fallen from fence), western side of Taracorp pile.



Photograph 23: Fence, warning sign (fallen from fence), western side of Taracorp pile.



Photograph 24: Vegetation near base of western side of Taracorp pile (view north).



Photograph 25: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view north).



Photograph 26: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 27: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 28: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view north).



Photograph 29: Concrete drainage swale, western side of Taracorp pile (view south).



Photograph 30: Concrete drainage swale, western side of Taracorp pile (view north).



Photograph 31: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 32: Fence and concrete drainage swale, southwestern side of Taracorp pile cap.



Photograph 33: Fence and concrete drainage swale, southwestern side of Taracorp pile cap.



Photograph 34: Fence and concrete drainage swale, southwestern side of Taracorp pile cap.



Photograph 35: Fence and concrete drainage swale, southwestern side of Taracorp pile cap.



Photograph 36: Fence and concrete drainage swale, southwestern side of Taracorp pile cap.



Photograph 37: Fence and concrete drainage swale, southwestern side of Taracorp pile cap.



Photograph 38: Fence (material staging on State Street Warehouse property).



Photograph 39: Fence (material staging on State Street Warehouse property).



Photograph 40: Broken fence pole (material staging on State Street Warehouse property).



Photograph 41: Bent fence (material staging on State Street Warehouse property).



Photograph 42: Bent fence and broken barbed wire (material staging on State Street Warehouse property).



Photograph 43: Bent fence and broken barbed wire (material staging on State Street Warehouse property).



Photograph 44: Fence along State Street Warehouse property.



Photograph 45: Concrete drainage swale along southern slope of Taracorp pile.



Photograph 46: Vegetation and concrete drainage swale along southern slope of Taracorp pile (view west).



Photograph 47: Vegetation and concrete drainage swale along southern slope of Taracorp cap pile.



Photograph 48: Concrete drainage swale along southern slope of Taracorp pile.



Photograph 49: Concrete drainage swale along southern slope of Taracorp pile.



Photograph 50: Southern side of Taracorp pile, stormwater outlet.



Photograph 51: Stormwater outlet.



Photograph 52: Stormwater outlet.



Photograph 53: Stormwater outlet and stormwater retention basin (view northeast).



Photograph 54: Stormwater manhole.



Photograph 55: Stormwater manhole near fence.



Photograph 56: Vegetation and fence near former Rich Oil facility (view toward State Street).



Photograph 57: Vegetation, eastern side of Taracorp pile cap.



Photograph 58: Leachate riser pipe.



Photograph 59: Locked lid on leachate riser pipe (locked lid installed fall 2007).



Photograph 60: Vegetation, top of Taracorp pile (view northeast).



Photograph 61: Vegetation, top of Taracorp pile (view northwest).



Photograph 62: Vegetation, former BV&G Truck Service area.



Photograph 63: Older and newer fence near former BV&G Truck Service buildings and along railroad tracks (view northeast).



Photograph 64: Older and newer fence near former BV&G Truck Service buildings and along railroad tracks (view northwest).



Photograph 65: Inside fence, corner of State Street and 16th Street.



Photograph 66: Inside fence, corner of State Street and 16th Street.



Photograph 67: Inside fence, corner of State Street and 16th Street.



Photograph 68: Lock on State Street gate.



Photograph 69: Concrete entranceway gate near 16th Street and State Street.



Photograph 70: Fence, warning sign, grass, and sidewalk along State Street.



Photograph 71: Fence, grass, and sidewalk along State Street.



Photograph 72: Fence, grass, utility pole, and sidewalk along State Street.



Photograph 73: Warning sign along State Street.



Photograph 74: Warning sign along State Street.



Photograph 75: Warning sign along State Street.



Photograph 76: Sidewalk along State Street.



Photograph 77: Sidewalk along State Street.



Photograph 78: Southern end of concrete sidewalk on 1555 State Street property (adjacent to former Rich Oil property).



Photograph 79: Southern end of concrete sidewalk on 1555 State Street property (adjacent to former Rich Oil property).



Photograph 80: Former Rich Oil property.



Photograph 81: Fence, grass, and sidewalk along State Street.



Photograph 82: Utility pole near intersection of 16th Street and State Street.



Photograph 83: End of sidewalk along railroad tracks.



Photograph 84: End of sidewalk along railroad tracks.



Photograph 85: End of sidewalk along railroad tracks.



Photograph 86: End of sidewalk along railroad tracks.



Photograph 87: Gas utilities along railroad tracks.



Photograph 88: Fence along railroad tracks and 16th Street.



Photograph 89: Warning sign on fence along railroad tracks near 16th Street and Edison Avenue.



Photograph 90: Warning sign on fence along railroad tracks near 16th Street and Edison Avenue.



Photograph 91: Fence and vegetation along railroad tracks and 16th Street.



Photograph 92: Fence and vegetation along railroad tracks and 16th Street.



Photograph 93: Monitoring well, fence, and vegetation along railroad tracks and 16th Street.



Photograph 94: Broken fence post along railroad tracks.



Photograph 95: Torn fence fabric along railroad tracks.

Attachment 6 Schaeffer Road Photographs May 20, 2019



Photograph 1: Schaeffer Road property, entrance.



Photograph 2: Schaeffer Road property, entrance.



Photograph 3: Schaeffer Road property, entrance.



Photograph 4: Schaeffer Road property, entrance.



Photograph 5: Schaeffer Road property, entrance.



Photograph 6: Schaeffer Road property, entrance.

Attachment 6 Schaeffer Road Photographs May 20, 2019



Photograph 7: Schaeffer Road property, roadway.



Photograph 8: Schaeffer Road property, roadway.



Photograph 9: Schaeffer Road property, roadway.



Photograph 10: Schaeffer Road property, concrete debris along roadway.



Photograph 11: Schaeffer Road property, roadway.



Photograph 12: Schaeffer Road property, roadway.

Attachment 6 Schaeffer Road Photographs May 20, 2019



Photograph 13: Schaeffer Road property, roadway.



Photograph 14: Schaeffer Road property, sanitary sewer manhole.



Photograph 15: Schaeffer Road property, sanitary sewer manhole.



Photograph 16: Schaeffer Road property, scattered battery case chips near sanitary sewer manhole.



Photograph 17: Schaeffer Road property, sanitary sewer manhole.



Photograph 18: Schaeffer Road property, roadway.

Attachment 7 Sand Road Photographs May 20, 2019



Photograph 1: Sand Road property (view from entrance). Photograph 2: Sand Road property (view from entrance).





Photograph 3: Sand Road property (view from entrance). Photograph 4: Sand Road property, concrete foundation.





Photograph 5: Sand Road property, concrete foundation.



Photograph 6: Sand Road property, concrete foundation.

Attachment 7 Sand Road Photographs May 20, 2019



Photograph 7: Sand Road property, concrete foundation.



Photograph 8: Sand Road property, concrete foundation.



Photograph 9: Sand Road property, concrete foundation. Photograph 10: Sand Road property, concrete foundation.





Photograph 11: Sand Road property, battery case chips on ground surface inside concrete foundation.



Photograph 12: Sand Road property, bricks / cement block.

Attachment 7 Sand Road Photographs May 20, 2019



Photograph 13: Sand Road property, concrete foundation.

Photograph 14: Sand Road property, drainage swale.



Photograph 15: Sand Road property, drainage swale.